REMARKS

Claims 1-14 are pending in this application. By this Amendment, claims 1 and 11-14 are amended to recite that the feeding means comprises a conveyor. Support for these amendments can be found in the specification as filed, for example, at page 17, lines 21-25. No new matter is added.

I. The Claims are Patentable over the Applied References

The Office Action (1) rejects claims 1-9 and 11-14 under 35 U.S.C. §103(a) over U.S. Patent No. 5,248,042 to Kuhmonen in view of U.S. Patent No. 5,292,006 to Girts; and (2) rejects claim 10 under 35 U.S.C. §103(a) over Kuhmonen in view of Girts, and further in view of U.S. Patent No. 4,665,772 to Greene. Applicants respectfully traverse the rejections.

Regarding independent claims 1 and 14, the applied references, if combined, fail to result in:

(1) "lowering the speed of the conveyor without stopping the conveyor ..." and "changing the speed of the conveyor without stopping the conveyor ..." wherein the conveyor feeds material to be screened towards the screen surface (claim 1), and "the controller is arranged to give a speed reducing control command, which does not stop the conveyor to the conveyor ..." and "the controller is arranged to give a speed changing control command which does not stop the conveyor, to the conveyor ..." wherein the conveyor feeds material to be screened towards the screen surface (claim 14);

(2) "a) providing upper and lower preset values (val_{max}, val_{min}) for the measurement value (val_m) of a variable dependent on the amount of material on the screen surface" as recited in claim 1 and similarly recited in claim 14; and

(3) "b) providing a preset value ($(\Delta val_m/\Delta t)_{max}$) for a speed of change of the measurement value (val_m) of the variable dependent on the amount of material on the screen surface" as recited in claim 1 and similarly recited in claim 14.

The Office Action cites to Kuhmonen's conveyor 18 as allegedly corresponding to the claimed feeding means. Conveyor 18 feeds material to rotating drum 20 that screens the material (col. 3, lines 11-32). The Office Action acknowledges that Kuhmonen fails to disclose the features quoted above but cites to Girts as curing these deficiencies. The Office Action cites to "c4 lines 1+" and "c1 lines 26+" as disclosing a control means that variably controls the rate of material placed on a conveyor.

Girts discloses a screening apparatus in which the entry of the material onto a first screen 50 is controlled by a feed plate 30. When the material to be screened is loaded on top of the grizzly grate 20, the feed plate 30 below the grizzly grate 20 starts to open, which causes material to fall onto the first screen 50 (col. 3, lines 39-47).

It would not have been obvious to modify Kuhmonen by Girts. The Office Action states that "it would have been obvious to one of ordinary skill in the art at the time of the applicant's [sic] invention to have modified Kuhmonen to include the variable control, such that the speed is reduced without stopping, as taught by Girts and well known in the art, in order to maintain proper load and prevent overloading of the conveyor" (emphasis added; Office Action, page 3). However, in Kuhmonen, prescreening device 14 feeds material to conveyor 18 (Fig. 1). Prescreening device 14 includes a grizzly bar belt (col. 3, lines 21-23). Prescreening device 14 itself removes "grossly oversized" material, preventing it from getting to conveyor 18 (col. 4, lines 24-29). Thus, because conveyor 18 is effectively fed by a prior conveyor (the grizzly bar belt) which removed the largest material before it arrives to conveyor 18, there would be little chance that conveyor 18 would be overloaded. Thus, there would have been no reason to add the feed plate 30 of Grits to Kuhmonen.

However, even if the proposed combination would have been made, the proposed combination fails to result in the features quoted above. First, Girts discloses varying the rate that feeding plate 30 is opened. If the proposed combination would have been made, the

result would be the Kuhmonen system, modified to have the Girts feeding plate 30, which would have a variable operating rate as disclosed by Girts. Thus, the proposed combination would fail to result in a conveyor for which the speed is variably controlled based on a measurement as claimed by Applicants.

Second, even if the proposed combination would have been made, features (1) quoted above would not result because Girts discloses that the feeding of first and second screens 50 and 15 is periodically stopped. Girts' system operates in a batch mode in which mechanical loader 11 periodically places loads of material onto the grizzly grate 20. Once the grizzly plate 20 is full of material that cannot pass through the grizzly grate 20, the grizzly plate 20 must be tipped to remove the material (Fig. 2; col. 3, lines 31-36). This operation interrupts and stops the feeding process and is equivalent to total stoppage of the feeding means. If Kuhmonen would have been modified by Girts, the proposed combination would not have resulted in the features quoted above in which the speed of a conveyor can be increased or decreased, without stopping, to ensure continuous operation of the screening apparatus.

Third, even if the proposed combination would have been made, the features quoted above would further not result because Girts discloses that material is supplied to first screen 50 by mechanical loader 11, grizzly grate 30, and feed plate 20. Girts discloses that the feed of material onto the first screen 50 is controlled by the combined effects of gravity, the location of material on the feed plate 30, and the size of the opening provided by the retracting feed plate 30. This results in an indefinite feeding speed of the material onto the first screen 50 that cannot be set to a desired value. Further, the material passing through the grizzly grate 20 can be accumulated randomly on top of the feed plate 30 so that, for example, the majority of the material falls onto the first screen 50 during the initial opening of the feed plate 30, or the majority of the material does not fall onto the first screen 50 until the feed plate 30 is fully opened. Thus, the feeding rate in Girts does not correspond to a feeding

speed that can be accurately set by a conveyor as in Applicants' claims. Further, in Girts, when the feed plate 30 gradually opens, the material may fall on different spots of the first screen 50, which results in different processing times for this material. In contrast, using the claimed conveyor, it is possible to feed the material onto one end of the screen and obtain the same processing time by the screen for all of the material that is fed onto the screen.

Further, even if the proposed combination would have been made, features (2)-(3) quoted above would not result because both Kuhmonen and Girts fail to disclose upper and lower preset values for a measurement "of a variable dependent on the amount of material on the screen surface" (claim 1), or a preset value for a speed of change of this measurement value. In Girts, the speed of the feed plate 30 is varied in response to the load on the conveyor motor 64 of conveyor 18 (col. 3, line 65 to col. 4, line 10), not on the amount of material on a screen surface, or a speed of change of a variable dependent on the amount of material on the screen surface, as claimed.

Greene, cited as disclosing features of claim 10, fails to cure the deficiencies of Kuhmonen and Girts. Applicants request withdrawal of the rejections.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

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Date: October 6, 2009

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